

CHILTON'S

October 18, 1985

IRON AGE

MANUFACTURING MANAGEMENT

PLEASE, NO MORE MYTHS ABOUT
THE DECLINE OF U.S. MANUFACTURING

00783994957CK
FEB27
CONGRESSIONAL INFO SERV
SRI ACQUISITIONS
4520 EAST WEST HWY
RETHESDA MD 20814
DIR

CHILTON'S IRON AGE

MANUFACTURING MANAGEMENT



Departments	
EDITORIAL STAFF	7
SIGNED, SEALED AND DELIVERED	7
BUSINESS STAFF	58
AD INDEX	58
MANAGEMENT SERVICE CARD	59
PRODUCT & EQUIPMENT REVIEW	61
P&P DATA 9/23	64
FERROUS SCRAP 9/23	65
CLEARING HOUSE	66

Editorial	5
Leave bad enough alone.	
Newswatch	11
Chrysler plans to cut automaking costs 30 pct by 1990.	
You and Your Job	19
The executive office concept seems here to stay.	
Manufacturing Myths	22
U.S. manufacturing still accounts for a large share of national output.	
Aluminum	33
There's plenty of metal available, but better prices would help.	
Identification Systems	39
Bar coding and other methods are turning up on the shop floor.	
Abrasives	49
Superabrasives' wider horizons are cutting finishing costs.	
Materials Report	63
U.S. Steel's new prices could set the pattern.	
Price Trends	68
Rising prices give way to falling prices.	
Next Issue: Automotive Materials and Applications	

IRON AGE (USPS 269-780) is published 24 times a year by CHILTON COMPANY, Chilton Way, Radnor, PA 19089. Chilton Co. is a division of American Broadcasting Companies, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. IRON AGE is sent on a controlled free basis to qualified managers in U.S. metalworking companies. All others: Manufacturing Management edition—\$42 one year, \$69 Canada/Foreign (24 issues); Metalsproducer U.S. edition—\$24 one year (12 issues); \$27 one year (6 issues). Single copies, \$2.50. Cable Chilton Philadelphia. Send address changes to IRON AGE, P.O. Box 1440, Riverton, N.J. 08077.



ONE OF THE ABC PUBLISHING COMPANIES

PLEASE, NO MORE MYTHS ABOUT THE DECLINE OF U.S. MANUFACTURING



BY JOHN D. BAXTER

Everybody *knows* that manufacturing in this country "just isn't what it used to be."

"We're getting to be a service economy," is a phrase heard over and over.

And there is the refrain that goes, "Let's face it, those Japs are just too tough."

Don't forget the cry, "Our factories can't compete with all those low-wage countries."

And, of course, everyone knows of a *lot* of friends and relatives that used to work in plants but were laid off—for good.

These people see other signs of the almost certain demise of manufacturing in this country. They don't have to look far. The driveways besides their homes are full of foreign-made cars. Their living rooms and playrooms are loaded with foreign-

made TVs and VCRs.

On their way to their banking, government and auto repair jobs, these people pass long-idled factories with For Sale signs plastered on their walls. They watch TV specials on hard-bitten towns in America's industrial heartlands—the Rust Bowl. And their favorite news magazine tells them that the current U.S. world trade balance is "the biggest ever run up by any country in history."

All these signs of decline, and likely demise, of U.S. manufacturing are starkly visible. They are publicized to the point of exploitation.

But the truth about the situation of manufacturing in this country is barely visible. This truth burns dimly like candlelight in a world of searchlights.

A Different Look

Still, among economists and other analysts who seriously probe the issue of the state of health of manufacturing in this country, there seems to be held a heartening consensus: American manufacturing is **not** by any means on its last legs.

In sum, their findings blast two great myths about the situation in manufacturing: Myth one: Manufacturing is declining in importance in the U.S. economy. Myth two: U.S. manufacturing is no longer competitive in world trade.

These analysts see problems, of course. But for most of U.S. manufacturing, they see the problems as acute rather than chronic. Too, they readily concede that for goods producing industries accounting for about one-fifth of U.S. manufacturing output, serious long-term problems do indeed exist. In those industries, hard decisions are being made and tough actions taken to cope with those problems.

It is the problems of these troubled industries—motor vehicles, iron and steel, textiles, shoes and leather, knitting and apparel—that has triggered much of the widely-held view that U.S. manufacturing, *per se*, is in deep, deep trouble.

DEBUNKING MYTHS ON THE 'DECLINE' OF U.S. MANUFACTURING

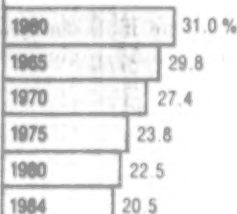
MYTH NO. 1

Manufacturing is declining in importance in the U.S. economy.

Everybody knows about and talks about the long-term decline in employment in manufacturing. The trend is cited as 'proof' of the decline in importance of manufacturing in this country.



Manufacturing Employment as Pct of Total Nonagricultural Employment



Source: U.S. Labor Dept.

But...of greater importance, manufacturing still accounts for as large a share of national output as in its so-called "glory days."

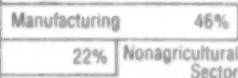
Manufacturing as Share of GNP Value Added by Manufacturing as Share of Real GNP, Pct.



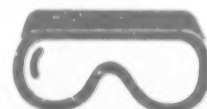
Source: U.S. Commerce Dept.

The high share of output with declining employment reflects a big 'plus' for manufacturing—its productivity growth has far outpaced the overall U.S. economy.

Productivity Growth, U.S. Manufacturing vs. Total U.S. Nonagricultural Business Sector, Pct. Increases 1970-1984



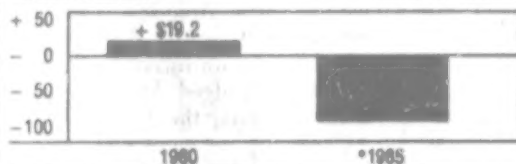
Source: U.S. Labor Dept.



MYTH NO. 2

U.S. manufacturing is no longer competitive in world trade.

U.S. Manufactured Goods Trade Balance Billions of Dollars



* As of Feb.
Source: U.S. Commerce Dept.

Head-to-head world industrial competition, in general, is not at issue. U.S. manufacturing's long-held strong trade surplus turned to deficit only after 1980, due chiefly to...

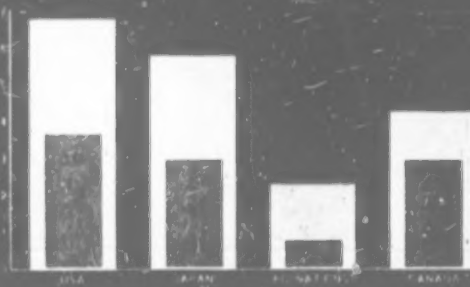
...a dollar that since 1980 soared wildly in exchange value—in effect, cutting the price of each import by 40 pct and adding a tax of 40 pct to each U.S. export.

Rise in Value of U.S. Dollar, Pct., 1980-85 Multilateral Trade-Weighted Nominal Value

Source: FPIB

*France, Germany, Italy, UK, Belgium, Luxembourg, Denmark, Greece, Ireland, Netherlands

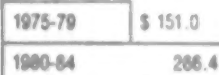
Economic Growth Rate, U.S. vs. Other Nations



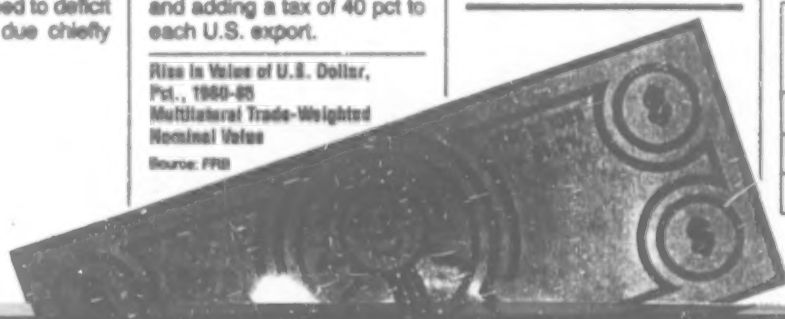
Further, the stronger economic growth of this country relative to world competitors over the past two years...

...served as a magnet for imports from foreign industries faced with relatively sluggish markets at home.

Imports of Goods to USA, Total Annual Avg. per Year, Billions of Dollars



Source: U.S. Commerce Dept.



M

ANUFACTURING TODAY ACCOUNTS FOR AS LARGE A SHARE OF THE NATION'S OUTPUT AS IT DID IN ITS SO-CALLED 'GLORY DAYS.'



A study, on economic change and industrial decline, made last year by economists at the New York Stock Exchange (NYSE), summed up: "Much of the concern about the decline of the U.S. manufacturing sector stems from the unfortunate tendency to extrapolate the experiences of a relatively small number of industries which have hit upon hard times."

The report added: "Despite some very troubled industries, on the whole manufacturing has not performed all that badly in recent years."

"Therefore, to suggest that the manufacturing sector in particular is in decline cannot be considered a proper characterization."

The NYSE study further noted that if the recent performance of the "Sick Six" industries is excluded from the manufacturing trend, then actual "improvement" in the U.S. manufacturing situation is discernable.

The Long Look

It may seem off-base at this point in time to include the U.S. auto industry in a list of sick or troubled industries. The industry, in September, broke all-time sales records. Too, it may seem odd to exclude from any list of troubled industries the producers of agricultural equipment. That industry has been in a depression for four years.

But it is the long-term trends the economist looks at to determine if manufacturing as a whole is declining in size and importance, or if it is unable to further compete in world markets.

There is one long-term trend that makes it appear that manufacturing in this country is on a certain downhill slide. That is the employment trend. The curve line of employment in manufacturing has been one of steady long-term decline. This is a highly visible phenomenon that packs a lot of emotional wallop with the public and is eagerly headlined by the press. It is a trend that puts in total eclipse other trends favorable to manufacturing.

The measure of employment preferred by most economists is manufacturing employment as a percent of total nonagricultural business sector employment. As charted on these pages, that ratio of manufacturing employment has fallen steadily for decades. In 1960, U.S. manufacturing industries employed 31 pct of all workers in the nonagricultural sector. Last year, manufacturing employed only 20.5 pct of such workers.

A Cool-Headed Look

Further, the years 1980-83 marked the first time in postwar history that employment in U.S. manufacturing fell for four consecutive years.

A tempering hand recently was

placed on these scary figures by Robert Solomoa, a former Federal Reserve Board official and now Guest Scholar at the Brookings Institution. "The reports on employment may well have created the impression that the goods-producing sector of the economy is shrinking, whereas what has actually happened is that productivity has risen faster in this sector."

Mr. Solomon added, "Neither goods output nor industrial production shows a significant slowing relative to the total output of the American economy."

These points raised by Mr. Solomon are shown graphically in the chart displays here. One shows that the share of total U.S. output accounted for by manufacturing has changed little during the past 25 years. This is looking at manufacturing in terms of its value added—total manufacturing income less payments to other industries.

Commented Mr. Solomon on the figures, "The aggregate data on the composition of U.S. output indicates very little, if any, weakening of manufacturing relative to total output. Goods output as a proportion of GNP has been remarkably stable over the years. In the first quarter of 1985, it was near the upper end of its normal range."

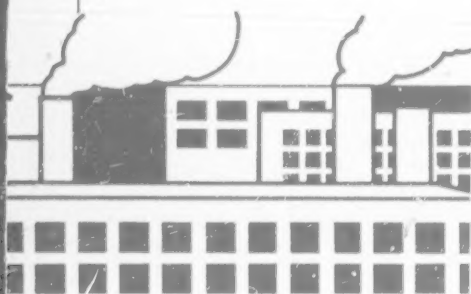
So, those who look at the long-term manufacturing employment downtrend—and the rise of jobs in services—talk excitedly about a Post-Industrial America, and of a service economy. But, noted Brookings economist Robert Z. Lawrence, "judged by the output share of goods, the United States was virtually no more of a service economy in 1980 than it was in 1960."

And James Fallow, a business analyst and writer, noted recently in the *Atlantic Monthly* that "service industries have employed more Americans than has manufacturing for at least 100 years." So what's new?

A Big Plus

In sum, manufacturing employment has declined over the long-

SINCE 1970, PRODUCTIVITY GROWTH IN MANUFACTURING HAS OUTPACED THAT OF THE OVERALL U.S. ECONOMY BY A MARGIN OF BETTER THAN TWO TO ONE.



term. But more importantly, manufacturing's share of total output has remained rock-steady. And the main reason underlying this continued strength, is in itself, another big 'plus' for manufacturing: Manufacturing productivity in recent years has grown at more than double the growth rate of the overall U.S. business nonfarm sector. As one chart here shows, in the period 1970 through 1984, productivity in manufacturing grew 46 pct; output per hour per person in the total nonagricultural business sector by 22 pct. That evidence hardly makes out manufacturing to be a dying sector of the U.S. economy.

The response of the analysts to the myth that manufacturing is de-

clining in importance in the economy is to resoundingly reject that notion.

But what about Myth No. 2, one that is probably held even more firmly by many Americans? That myth is that U.S. manufacturing is no longer competitive in world trade.

The *proof* underlying this myth is the sight of foreign-made products that fill American stores, offices, highways and homes. The other part of this vision is shuttered mills across the U.S. landscape.

A Deep Probe

One group of economists which has probed long and deep into the U.S. trade situation is the President's Council of Economic Advisers (CEA). Trade is a subject of great importance to them because of national policy implications. In last year's Economic Report to the President, the advisers made a special analysis of the trade situation. Here's one of its key statements:

"It is easy to draw the impression that there is a serious adverse long-term trend in the competitive standing of the United States in the world economy. The greatest danger is that such ideas will come to be believed, and as a result, the nation will opt for major departures from its traditional economic system."

How can the President's economists make such a statement in the face of 10 years of U.S. trade deficits that will total an estimated \$500 billion through the end of this year?

Simply, the CEA has sorted out temporary influences from long-term trends. The suddenness of the recent collapse in the U.S. trade balance gives credence to their point of view. This 'suddenness' shows up dramatically in trade data on manufactured goods.

In the three-year period 1979-81, U.S. manufacturers rolled over world competitors as they had over an almost unbroken chain of years since 1887. In that three-year span, American goods producers rang up an import-export trade surplus of \$35 billion.

But...over the next three years,

U.S. manufacturers were slammed by a staggering \$114 billion trade deficit.

A \$149 billion turnaround in trade in back-to-back, three-year periods! What happened?

Mystery Cleared

The CEA argued its case on the overall trade deficit, which in 1983 and 1984 totaled \$170 billion—more than two and a half times that of the previous two years. It stated:

"Although the trade deficits (1983-84) are without precedent, they are not difficult to explain. To begin with, the United States has a normal or 'structural' deficit in merchandise trade that is offset by a surplus in exports of services and therefore need not be a cause for special concern.

"But it is the recent increase in the trade deficit that has attracted attention. The increase can be broken down into three parts. First, the appreciation of the dollar has made it difficult for U.S. firms to compete in world markets. Second, there has been a substantial loss in net exports to debt-troubled countries. Third, the U.S. is experiencing more rapid growth in income, and therefore, in imports, than are Europe and Japan."

The report added, "Those three factors concern economic perturbations that, though large, are believed to be temporary. The structural deficit is normal in that it would exist even in the absence of temporary factors."

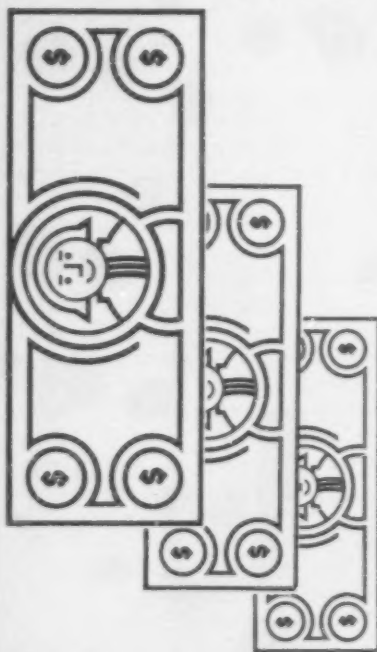
The CEA further said the structural trade deficit "now appears to be in the range of \$20 billion to \$25 billion."

Clearly, in the view of the CEA—and many other economists and business executives—the greatest injury to the U.S. trade position comes from the great surge in the dollar in world currency exchanges. This began in 1980. The CEA blames that factor for 60 pct of the recent years' turnaround.

A Close Match-Up

In the second series of charts shown here, it is seen that the U.S.

THE RISE OF THE DOLLAR SINCE 1980, IN EFFECT, CUT PRICES OF IMPORTS BY 40 PCT AND RAISED PRICES OF EXPORTS BY 40 PCT.



trade balance in manufactured goods went from a \$19 billion surplus in 1980 to a near-\$100 billion deficit level as of February of this year. That turnaround fits hand-in-glove with an 81 pct rise in the dollar over the same period.

When the CEA says, "the appreciation of the dollar has made it difficult for U.S. firms to compete in world markets," it makes a bland understatement. In effect, the dollar rise from 1980 through February of this year raised prices of U.S. exported goods by 40 pct and lowered prices of goods imported into the U.S. by 40 pct. Even industries with the strongest long-term success records could be expected to buckle under those conditions.

The dollar, as of September of this year, has come down by about 15 pct. Will it depreciate more?

That question, economists apparently feel is unfair. It appears they don't even know where exchange rates were in the past. Here's what the CEA said in the 1983 Economic Report to the President:

"Exchange-rate movements are not well understood. Econometric models of exchange rate determination proposed in the past decade have not shown any consistent ability to track past exchange-rate movements, let alone predict future changes."

Beyond the dollar impact on trade, there is the second impact cited by the CEA, and others: Economic growth in this country in 1983-84 far outpaced growth in leading industrial nations.

The CEA estimated that this growth rate disparity accounted for almost 20 to 25 pct of the U.S. trade deficit last year. A chart here shows that U.S. economic growth surpassed that of even Japan.

This growth rate imbalance made the relatively active U.S. markets inviting to foreign goods producers. And this was doubly true because at the same time U.S. markets were burgeoning, the home markets of these foreign manufacturers were in a relative doldrums. So, they stepped up their efforts to export to this country. On top of this temporary situation, American markets, as always, were the biggest for just about any product and entry to its rich markets as easy as anywhere in the world.

Another chart here shows the impact of the resulting great import invasion. In the 1975-79 period, imports to this country averaged \$151 billion per year. In the 1980-84 period, imports averaged \$266 billion a year—a 75 pct increase.

Another Problem

As the CEA indicated, another reason for the recent explosion in U.S. trade deficits is found in the huge debts of developing nations. The economists estimated, for example, that between 1981 and 1983,

the U.S. loss in net exports to Latin America was about \$21 billion. Those nations weren't interested in buying goods from anybody. They were interested only in exporting to obtain badly needed funds that would help keep their debts from strangling them.

So, there is no question that U.S. manufacturing industries have been under siege—chiefly since 1980. Still, there has been no decline during that siege in the share of GNP accounted for by manufacturing. In other words, there has been no decline in the importance of manufacturing in this country.

Also, there is little reason to believe that U.S. manufacturing, as a whole, has lost its ability to compete in world markets. Temporary extraordinary factors have deeply hurt U.S. manufacturing, just as they have the entire nonmanufacturing sector of the economy. There is no way U.S. manufacturers could escape injury in a string of years when a runaway dollar sharply raised the prices of their goods for export and, at the same time, sharply cut the prices of products of their world competitors.

But eventually, even currency exchange values have a way of righting themselves. They have before. There are signs they are doing so right now.

Still, to say that all the problems of all of manufacturing are a passing thing is inaccurate. Many basic goods manufacturers in this country face long-term problems of a pressing nature. Some face patently unfair trade hurdles that cry out for remedies beyond their own reach; remedies that require trade negotiations or legislation.

But mostly, the problems faced by many basic goods manufacturers are long-term ones of supply-demand imbalance. Problems of this kind can be dealt with—and are being dealt with by industry leaders—over long periods of time. Even this difficult realignment and restructuring will become easier when the temporary crushing weights of recent years, such as the soaring dollar, have run their course. □

ALUMINUM FLOWING FREELY

Despite production cuts and smelter shutdowns, there is still plenty of aluminum and plenty of pressure on the metal's price.

BY ROBERT REGAN

There's nothing wrong with the aluminum industry that a dose or two of better prices won't cure.

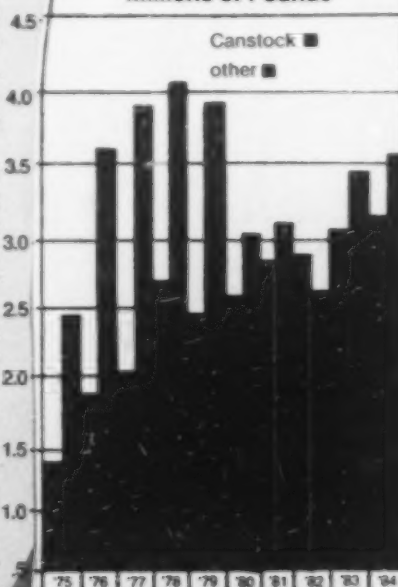
Incoming order rates and shipping volume this year are right up there with the best. Important markets like can stock, building and construction and transportation are doing as well as can be expected. Popular volume forecasts for 1985 cluster around 15.2 billion lbs, only 1.3 pct off the 1984 record.

The problem is that the old tried and true medicine apparently isn't taking—or at least isn't taking fast enough. Despite production cuts, mothballing and outright smelter shutdowns, there still has been too much metal out there and the condition has been spreading to rolling capacity, particularly in the all-important containers and packaging end of the business.

Complications stem from the strong U.S. dollar, which according to Aluminum Association calculations, helped mill products made outside the U.S. to a 7.6 pct share of the domestic market last year. All of it adds up to a buyer's market with prices determined accordingly.

The situation has been most evi-

Aluminum Sheet Shipments
Millions of Pounds



The importance of can stock to the aluminum industry is evident in the nearly 40 pct share of total sheet shipments in 1984, compared with 26.2 pct 10 years earlier. Can stock shipments have risen steadily in the 10-year period. So have the can recycling figures, only faster. The 1.25 billion lbs of can stock recovered last year was equal to 37.7 pct of can stock shipments. Ten years earlier, can stock recovery was equal to 13.8 pct of can stock shipments.

Source: Aluminum Association * Includes imports

dent in the ingot market, where the London Metal Exchange price holds up an easy-to-read thermometer. But it also hampered profitability in the canstock business, which alone accounts for nearly 23 pct of domestic order bookings. Can stock shipments will move up again this year—Reynolds Metals Co. estimates a 6.1 pct jump to 3.45 billion lbs—but the pressure on prices has been the other way around.

Imported can stock took about 8.7 pct of the domestic market last year (the import share is down a bit this year, according to some industry sources) but there's some added pressure on the horizon with the advent of Logan Aluminum, Inc., which has completed qualification trials with some of the canmakers. The big Kentucky mill is 60 pct owned by Atlantic Richfield Co., which is looking for a buyer, and 40 pct by Alcan Aluminium Ltd.

Robert Hoffman, group vice president of rolled products for Aluminum Co. of America (Alcoa), sizes up the

U.S. Aluminum Trade

(Millions of lbs)

	Imports		Exports	
	Ingot	Mill Products	Ingot	Mill Products
1984	1,945	1,090	572	504
1983	1,637	618	795	446
1982	1,359	456	802	492
1981	1,421	304	688	682
1980	1,161	168	1,429	763
1979	1,142	426	401	622
1978	1,516	484	253	494
1977	1,341	165	196	517
1976	1,151	189	305	516
1975	868	130	372	433

Source: Aluminum Association, U.S. Department of Commerce

The big jump in shipments of aluminum came to the U.S. market last year was drawn by the strong U.S. dollar to an easily accessible market. Biggest gainers were Japan, Venezuela, Canada, Australia and Europe. The big surge in ingot exports in 1980 reflected a doubling of shipments to Japan and the rest of the Asian market.

Japanese as formidable competitors in the canstock business. He said they have the equipment and capacity to keep pace with the thinner and wider sheet the U.S. canmakers demand, but "it remains to be seen if they can match our quality improvements in gage control, surface, profile and internal consistency."

Alcoa over the past year has made considerable investment in its rolling facilities. As has been the case with similar programs by other U.S. companies, the emphasis went on quality control, but there also was some addition to capacity. But the Logan mill, the industry's newest greenfield mill, and a smaller but substantially sized canstock mill under construction for Alumax, Inc., in Texas, are the big capacity adders.

Asked how the 1986 canstock market will absorb the output of the two new mills and rising imports, Mr. Hoffman replied, "We are unaware that Logan has qualified anywhere (and) our information suggests that imports are declining."

He also said Alcoa still believes Japanese canstock shipments to the U.S. market will decline as the home and other Asian markets grow and as recovery in the aluminum market generally increases the cost of ingot and aluminum scrap the Japanese

now draw heavily from the U.S.

The Alcoa official declined to link the company's threatened Section 301 action against the Japanese with canstock shipments here. Most of the Japanese aluminum shipped here is can stock, but "the 301 action has to do with permitting Alcoa's products into Japan on equal terms with their shipments here." Asked if the sizable shipments of U.S. scrap and ingot to Japan weakened the aluminum trade argument, he would say only that "those imports are more a result of Japanese raw material requirements which are not available at home."

As for plans in the beverage industry to introduce a 12-oz plastic soda can, Mr. Hoffman said this won't be a problem next year, but it could be one perhaps within five years. The conditions, he said, are "if they can solve their recycling and cost competitive problems and, if these are solved, will the penetration be at the expense of aluminum, or glass, or both?"

Reynolds Metals said industry shipments of can stock next year should match this year's 3.45 billion lbs. The company said beer sales have flattened on a gallonage basis and any growth for aluminum on this side of the market would have

to be via edging out glass bottles, presumably by moving up into the larger beer container sizes.

Aluminum's growth on the soft drink side of the business should continue, the company said. As for plastic soda cans, Reynolds said it doesn't see any real threat yet but, if they take hold, the company will expand its container manufacturing operations to include them as well.

Reynolds also noted that canstock growth can't be measured on a weight basis alone because the 66 lbs of aluminum it took to make 1,000 cans two decades ago has been pared to 26 lbs today and there has been commensurate improvement in canstock prices, and productivity improvements to boot.

Asked if imports were the main reason for de facto extension of the 12-month price freeze on can stock that was to have run out last April 1, a Reynolds official replied, "Pricing of can stock and other products is determined by available supply of base materials and rolling capacity of U.S. mills. Growth of canstock supply, especially from imports, coupled with flatter demand weakened the prospects for price increases after April 1, despite cost increases, and prices continue sluggish in this market."

Reynolds Strategy

Reynolds said its main strategy remains upgrading quality and facilities, plus more internal consumption of can stock because "imports, especially from Japan, will continue to be a major factor even with the recent declines in the U.S. dollar."

William T. Sullenberger, vice president marketing and sales for Commonwealth Aluminum Corp., said the strong points for mill products from its Lewisport, Ky., facility are building and construction products, can stock and short lead time distributor business.

Mr. Sullenberger said the approaching mid-1986 deadline on current aluminum industry wage pacts could bring some changes in buying strategies of the service centers and other customers, "but I don't think inventories will return to

what they used to be. There isn't really a scarcity of metal and customers have been able to buy what they want when they want it. And I don't think anybody really expects a labor problem in 1986. Labor is working with management to keep the plants in business."

Asked if he thought the LME and Comex hedge markets had overplayed the oversupply situation, Mr. Sullenberger said, "the LME and Comex have little to do with actual business; it's a matter of speculators not making any money on market movement. Right now, they're not interested in buying. It may be they have a new (producer) inventory level in mind and it hasn't reached that level yet, but who knows?"

Alumax President Robert Marcus said it was a fair assumption that the hedge markets had overplayed the surplus. "There has been an increase in consumption of primary aluminum and Alumax, along with other major U.S. producers, has taken steps to reduce ingot inventory this year. I believe the economics are favorable and an improvement can be expected."

During the 1982 recession, Alumax pursued a strategy of building ingot inventory to be in a position to cash in during the next upcycle. It isn't following this plan this time around, however. Mr. Marcus noted the company had a substantial cash reserve before, but debt was increased and cash reserve trimmed in 1983 with the purchase of Pechiney's North American aluminum properties. The strategy this year has been to curtail production and hold inventory down.

Alumax's CEO also said he believes the ingot market "will be in much better condition" when the new 230,000 metric tons a year Becancour, Que., smelter comes onstream in mid-1986. Pechiney Corp., the Greenwich, Conn.-based unit of Pechiney of France, holds a 50.1 pct interest in the smelter and Alumax and Quebec's Societe Generale de Financement each hold 24.95 pct. A 20 pct reduction in power required per ton of aluminum over average North American smelt-

er power use is claimed for Becancour, which is designed for 50 pct capacity expansion.

Mr. Marcus also said construction of the company's Texarkana, Tex., can sheet mill and aluminum recycling plants is proceeding on schedule and they should be onstream by the end of the first quarter of 1986. Feedstock for the 75,000 tons a year can sheet mill will be recycled beverage cans with amounts of primary metal added from time to time.

A Kaiser Aluminum & Chemical Corp. spokesman said the Logan mill can be regarded "as another competitor in a highly competitive market. However, quality will be the main issue and that's where the game is going to be played."

Kaiser Aluminum's modernization program for its big Trentwood, Wash., mill requires, he said, situating a few more pieces of equipment in the finishing department. "And," he added, "we have been getting favorable customer response on can stock produced on the upgraded five-stand cold mill."

Looking at the market situation in general, he said customers generally build up inventory in front of labor negotiations, but it was difficult to predict how things will go next year. He said it also was difficult to judge whether or not the hedge markets had overplayed the slow reaction of producer inventories to the production curbs. LME prices usually slump in August-September but post-Labor Day prices "hit an all-time low this year, so there could be some overreaction going on."

Auto Recovery

Another strong point (volume-wise, at least) for the aluminum companies this year has been continued recovery in U.S. car and truck production, which rose in the first three quarters.

During the 1970s, when per-car aluminum use was making impressive gains, aluminum prices were rising fast and Detroit wasn't happy about it. There have been no fast-rising aluminum prices in the 1980s, but the carmakers still hang tough in the procurement department.

Kaiser Aluminum, which recently won the nod as major supplier of GM's aluminum requirements for the 1986 model year, said "the moderation of aluminum prices has been advantageous for the automobile industry and, concurrently, aluminum's position in automotive usage has been strengthened. But, obviously, the cost of competitive materials is always going to be an important criteria."

Kaiser also said the auto companies are likely to look for "partnership arrangements" in the future, presumably of the tolling variety.

A spokesman for Cleveland-based Alcan Rolled Products, a unit of the Canadian aluminum company's U.S. arm, Alcan Aluminum Corp., said: "Detroit still is interested in lowering the cost of its products and we think weight saving still will be important. There is room for growth, but we see it more in terms of castings than body sheet."

Alcoa's Mr. Hoffman said the company believes the Detroit automakers "have a more secure feeling now about long-term prices of aluminum. Progress with Detroit on aluminum-intensive car designs is painfully slow; in fact progress offshore shows more promise."

He said aluminum use per average passenger car is slightly higher in the 1986 models.

William O. Bourke, president and chief operating officer of Reynolds Metals, said aluminum's current price levels "certainly make aluminum a more cost-competitive material for Detroit compared to a few years ago," but pricing to the auto industry today reflects supply and demand considerations in the aluminum industry today.

Mr. Bourke, who has extensive background in the auto industry, said the current 139 lbs per average car for 1986 models should top 200 lbs in the 1990s. The major growth, he said, will be in cast and wrought components, rather than in sheet applications. He also noted, somewhat wryly, that car imports don't help domestic aluminum companies, although overseas units supply some foreign car companies. □

MATERIALS PRICES

PRICE & PRODUCTION DATA

(Effective September 23, 1985)

Steel production by districts, thousands of tons
(000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	169	183	168	124
Pittsburgh	154	159	165	230
Youngstown	97	97	94	99
Lake Erie	143	112	129	159
Detroit	144	134	141	116
Chicago	476	461	492	350
Cincinnati	93	95	96	81
St. Louis	68	72	70	74
Southern	181	185	191	159
Western	69	84	77	70
U.S. Production	1,594	1,582	1,623	1,462

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports. Rail transportation, handling and unloading may be charged to the account of the buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural)	gross-ton 59.4*
Pellets (per iron unit natural)	gross-ton 72.5-86.9**
Mesabi, regular-unscreened	gross-ton \$32.53
Mesabi, non-bessemer	gross-ton \$30.03-31.53***

*\$9.4¢—Pickands Mather, 8/1/85, delivered hold of vessel, upper Lake ports.

72.5¢—U.S. Steel as of 8/16/85. **86.9¢—Oglebay Norton 3/25/82; Hanna Mining and Cleveland-Cliffs, 2/26/82. *Effective 8/1/83.

NONFERROUS PRICES

(Effective September 23, 1985) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	44.11	44.88	9/23/85
Copper (C)	64.00	63.50-64.00	9/23/85
Lead	19.00-20.00	18.50-20.00	9/23/85
Magnesium Ingot	148.00	143.00	5/25/84
Nickel (LME)	201.12	212.81	9/23/85
Titanium Sponge	555.00-585.00	555.00	4/29/82
Zinc	41.00	41.00-47.00	8/19/85

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	\$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	\$236.00
Beryllium-copper, per lb. cont. Be	\$144.00
Beryllium 97% powder 200	\$197.00
Cadmium, ton lots	\$1.00-1.25
Calcium, ton lots, crown	\$3.76
Chromium, 99.8%	\$3.75
Cobalt, 99%, cathode	\$12.50
Gold per troy oz.	\$327.70
Indium, dollars per troy oz.	\$2.50
Iridium, dollars per troy oz.	\$430.00
Magnesium sticks, 10,000 lbs.	\$2.02
Mercury, per 76-lb. f.o.b. N.Y.	\$320.00-330.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	\$6.85

Nickel electro (PDCR)	\$3.29
Palladium, per troy oz.	\$97.00
Platinum, per troy oz.	\$299.00
Rhodium, per troy oz.	\$1,010.00
Silver ingots, per troy oz.	\$6.125
Vanadium	\$6.00
Zirconium sponge	\$12.00-17.00

(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Penang in Malaysian dollars per kilo.)

Sept. 16—Holiday	Sept. 19—\$45.50
Sept. 17—\$48.36	Sept. 20—\$51.09
Sept. 18—\$47.81	

Scrap Prices

Brass Mill Scrap

(Cents per lb.; over 20,000 lbs. add 1¢ per lb.)

	Solids	Turnings
Copper	59	48 1/2
Yellow brass	52 1/8	43 1/2
Red brass	55 3/8	45 1/2
Comm. bronze	56 1/2	46
Mang. bronze	45 1/4	44 1/4
Free cutting rod ends	47	46

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	54
No. 2 copper wire	45
Light copper	37

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	50
No. 2 copper wire	41
Light copper	33
No. 1 composition	46
No. 1 comp. turnings	44
Hvy. yellow brass solids	33
Hvy. yellow brass turnings	30
Radiators	35

STEEL PRODUCTION, COMPOSITE PRICES

(Effective September 23, 1985)

U.S. Steel Production

	Last Week	Two Weeks Ago	To Date 1985	To Date 1984
Net tons, in thousands	1,594	1,582	64,001	69,819
Capability Utilization Rate	62.5	62.1	66.1	71.3

Composite Prices

	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (\$/lb.—eff. 7/1/84)	27.582	27.582	27.582	27.582
Pig Iron** (Net ton= 2000 lbs.)	\$213.00	\$213.00	\$213.00	\$213.00
Scrap No. 1 hvy.*** (Gross ton=2240 lbs.)	\$72.17	\$72.50	\$74.17	\$85.17
No. 2 bundles	\$53.17	\$53.17	\$53.83	\$51.50

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	\$75.50	\$75.50	\$77.50	\$92.50
No. 1 steel, Philadelphia	68.50	69.50	72.50	81.50
No. 1 steel, Chicago	72.50	72.50	72.50	81.50
No. 1 bundles, Detroit	69.50	69.50	71.50	77.50
Low Phos., Youngstown	70.50	70.50	70.50	80.50
No. 1 mach'y cast., Pgh	71.50	71.50	71.50	71.50
No. 1 mach'y cast., Phila	92.50	92.50	93.50	98.50
No. 1 mach'y cast., Chi	99.50	99.50	99.50	115.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.

**Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing plants within the U.S.

***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

Aluminum

New mixed clips	33	— 34
Old sheet	30	— 31
Old cast	30	— 31
Clean dry borings	31	— 32

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	24	— 26
Mixed L.C. clips	21	— 22
Old sheets and cast	20	— 21
Borings and turnings	16	— 18
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	45	— 46
No. 2 copper wire	37	— 39
Light copper	32	— 33
Radiators	30	— 31
No. 1 composition	39	— 40
No. 1 composition turnings	36	— 37
Cocks and faucets	28	— 29
Clean heavy yellow brass	27	— 28
Brass Pipe	28	— 29
New soft brass clippings	39	— 40

Lead

Heavy soft lead	6	— 8
Whole batteries	1	— 3
Type metal	16	— 17
Electrotype	13	— 15

Nickel

Nickel solids	120	— 130
Nickel rod ends	120	— 130
Nickel sheets, clips	120	— 130
Nickel turnings	35	— 45

Zinc

New zinc clippings	17	— 18
Old diecast zinc	13	— 14

EFFECTIVE SEPT. 23, 1985

(Effective September 23, 1985) Prices obtained in trade based on representative tonnage per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of Iron Age editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	\$ 75.00 to \$ 76.00
No. 2 hvy. melting	65.00 to 66.00
No. 1 dealer bundles	90.00 to 91.00
No. 1 factory bundles (auto)	90.00 to 91.00
No. 2 bundles	54.00 to 55.00
No. 1 busheling	89.00 to 90.00
Machine shop turnings	7.00 to 8.00
Shoveling turnings	40.00 to 41.00
Cast iron borings	38.00 to 39.00
Low phos. punchings plate	92.00 to 93.00
Heavy turnings	65.00 to 66.00
No. 1 RR hvy. melting	81.00 to 82.00
Rails, 2 ft. and under	96.00 to 97.00
Scrap rails, random lgth	85.00 to 86.00
RR specialties	95.00 to 96.00
No. 1 machinery cast	71.00 to 72.00
Cupola cast	64.00 to 65.00
Heavy breakable cast	30.00 to 31.00
Stainless	
18-8 bundles and solids	565.00 to 575.00
18-8 turnings	465.00 to 475.00

Chicago

No. 1 hvy. melting	\$ 72.00 to \$ 73.00
No. 2 hvy. melting	67.00 to 68.00
No. 1 dealer bundles	88.00 to 89.00
No. 1 factory bundles (auto)	86.00 to 87.00
No. 2 dealer bundles	61.00 to 62.00
No. 1 busheling	84.00 to 85.00
Shredder scrap	84.00 to 85.00
Machine shop turnings	42.00 to 43.00
Mixed borings and turnings	44.00 to 45.00
Shoveling turnings	46.00 to 47.00
Cast iron borings	45.00 to 46.00
Low phos. large crop	96.00 to 97.00
Low phos. punchings plate	
1/4 in. and heavier	112.00 to 113.00
Low phos. 2 ft. and under	107.00 to 108.00
No. 1 RR hvy. melting	76.00 to 77.00
Scrap rails random lgth	82.00 to 83.00
Reroller rails	107.00 to 108.00
Rails, 2 ft. and under	105.00 to 106.00
RR couplers and knuckles	92.00 to 93.00
RR car axles	111.00 to 112.00
No. 1 machinery cast	99.00 to 100.00
Cupola cast	87.00 to 88.00
Stove plate	89.00 to 90.00
Steel car wheels	89.00 to 90.00
Stainless	
18-8 bundles and solids	550.00 to 560.00
18-8 turnings	465.00 to 475.00
430 bundles and solids	150.00 to 155.00
430 turnings	120.00 to 125.00

Philadelphia

No. 1 hvy. melting	\$ 67.00 to \$ 70.00
No. 2 hvy. melting	58.00 to 61.00
No. 1 dealer bundles	82.00 to 85.00
No. 2 dealer bundles	42.00 to 45.00
No. 1 busheling	82.00 to 85.00
Shredder scrap	83.00 to 86.00
Machine shop turnings	25.00 to 28.00
Mixed borings and turnings	25.00 to 28.00
Shoveling turnings	40.00 to 43.00
Low phos. 5 ft. and under	78.00 to 81.00
Low phos. 2 ft. punchings	99.00 to 102.00
Electric furnace bundles	89.00 to 92.00
RR specialties	78.00 to 81.00
Rails, 2 ft. and under	102.00 to 105.00
Cupola cast	76.00 to 79.00
Heavy breakable cast	53.00 to 56.00
No. 1 machinery cast	91.00 to 94.00

Detroit

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 54.00 to \$ 55.00
No. 2 hvy. melting	53.00 to 54.00
No. 1 dealer bundles	69.00 to 70.00
No. 2 bundles	30.00 to 31.00
No. 1 busheling	68.00 to 69.00
Drop large flashings	44.00 to 45.00
Machine shop turnings	42.00 to 43.00
Mixed borings and turnings	21.00 to 22.00
Shoveling turnings	42.00 to 43.00
Cast iron borings	24.00 to 25.00
Heavy breakable cast	35.00 to 36.00
Mixed cupola cast	50.00 to 51.00
Automobile cast	74.00 to 75.00
Stainless	
18-8 bundles and solids	525.00 to 535.00
18-8 turnings	400.00 to 410.00
430 bundles and solids	115.00 to 125.00

Youngstown

No. 1 hvy. melting	\$ 69.00 to \$ 72.00
No. 2 hvy. melting	58.00 to 61.00
No. 1 dealer bundles	76.00 to 79.00
No. 2 dealer bundles	33.00 to 36.00
Machine shop turnings	26.00 to 29.00
Shoveling turnings	26.00 to 29.00
Low phos. plate	69.00 to 72.00
Electric furnace bundles	73.00 to 76.00
Galvanized bundles	66.00 to 69.00

Cleveland

No. 1 hvy. melting	\$ 58.00 to \$ 61.00
No. 2 hvy. melting	49.00 to 52.00
No. 1 dealer bundles	80.00 to 83.00
No. 1 factory bundles	69.00 to 72.00
No. 2 bundles	30.00 to 33.00
No. 1 busheling	79.00 to 82.00
Machine shop turnings	18.00 to 21.00
Mixed borings and turnings	9.00 to 12.00
Shoveling turnings	26.00 to 29.00
Cast iron borings	18.00 to 21.00
Cut structural & plates,	
2 ft. and under	102.00 to 105.00
Low phos. punchings plate	102.00 to 105.00
Drop large flashings	54.00 to 57.00
Foundry steel, 2 ft. & under	71.00 to 74.00
No. 1 RR hvy. melting	65.00 to 68.00
Rails, 2 ft. and under	92.00 to 95.00
Rails, 18 in. and under	96.00 to 99.00
Steel axle turnings	59.00 to 62.00
Railroad cast	91.00 to 94.00
Cupola cast	90.00 to 93.00
Stove plate	57.00 to 60.00
Stainless	
18-8 bundles	515.00 to 525.00
18-8 turnings	395.00 to 405.00
430 bundles	95.00 to 105.00

Buffalo

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 55.00 to \$ 56.00
No. 2 hvy. melting	45.00 to 46.00
No. 1 busheling	70.00 to 71.00
No. 1 dealer bundles	69.00 to 70.00
No. 2 bundles	33.00 to 34.00
Machine shop turnings	17.00 to 18.00
Mixed boring and turnings	17.00 to 18.00
Shoveling turnings	23.00 to 24.00
Cast iron borings	25.00 to 26.00
Low phos. plate	77.00 to 78.00
Structural and plate,	
2 ft. and under	81.00 to 82.00
Rails, 2 ft. and under	81.00 to 82.00
Scrap rails, random lgth	65.00 to 66.00
No. 1 machinery cast	76.00 to 77.00
No. 1 cupola cast	58.00 to 59.00

St. Louis

No. 1 hvy. melting	\$ 50.00 to \$ 51.00
No. 2 hvy. melting	39.00 to 40.00
Foundry steel, 2 ft.	48.00 to 49.00
No. 1 dealer bundles	50.00 to 51.00
No. 2 bundles	34.00 to 35.00
Machine shop turnings	15.00 to 16.00
Shoveling turnings	21.00 to 22.00
Cast iron borings	30.00 to 31.00
No. 1 RR hvy. melting	53.00 to 54.00
Rails, random length	59.00 to 60.00
Rails, 18 in. and under	72.00 to 73.00
RR specialties	70.00 to 71.00
Cupola cast	71.00 to 72.00
Heavy breakable cast	49.00 to 50.00
Stove plate	89.00 to 90.00
Steel car wheels	81.00 to 82.00
Rerolling rails	69.00 to 70.00
Unstripped motor blocks	64.00 to 65.00

Birmingham

No. 1 hvy. melting	\$ 76.00 to \$ 77.00
No. 2 hvy. melting	72.00 to 73.00
No. 1 dealer bundles	76.00 to 77.00
No. 2 bundles	51.00 to 52.00
No. 1 busheling	76.00 to 77.00
Shredder scrap	93.00 to 94.00
Machine shop turnings	27.00 to 28.00
Shoveling turnings	40.00 to 41.00
Cast iron borings	39.00 to 40.00
Electric furnace bundles	68.00 to 69.00
Elec. furnace, 3 ft. & under	72.00 to 73.00
Structural and plate, 2 ft.	93.00 to 94.00
Structural and plate, 4 ft.	88.00 to 89.00
No. 1 RR hvy. melting	88.00 to 89.00
Scrap rails, random lgth	80.00 to 81.00
Rails, 2 ft. and under	94.00 to 95.00
Angles and splice bars	86.00 to 87.00
No. 1 cupola cast	86.00 to 87.00
Unstripped motor blocks	76.00 to 77.00

Cincinnati

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 54.00 to \$ 55.00
No. 2 hvy. melting	53.00 to 54.00
No. 1 dealer bundles	64.00 to 65.00
No. 2 bundles	34.00 to 35.00
Machine shop turnings	7.00 to 8.00
Shoveling turnings	10.00 to 11.00
Cast iron borings	15.00 to 16.00
Low phos. 18 in. and under	79.00 to 80.00
Rails, random length	59.00 to 60.00
Rails, 2 ft. and under	74.00 to 75.00
Heavy breakable cast	24.00 to 25.00
Drop broken cast	71.00 to 72.00

New York

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 44.00 to \$ 45.00
No. 2 hvy. melting	35.00 to 36.00
No. 1 dealer bundles	20.00 to 24.00
Mixed borings and turnings	10.00 to 11.00
Machine shop turnings	4.00 to 6.00
Shoveling turnings	10.00 to 12.00
Clean cast, chem. borings	35.00 to 36.00
No. 1 machinery cast	79.00 to 80.00
Mixed yard cast	50.00 to 51.00
Heavy breakable cast	10.00 to 12.00
Stainless	
18-8 prepared solids	500.00 to 510.00
18-8 turnings	400.00 to 410.00
430 prepared solids	90.00 to 100.00
410 solids	75.00 to 85.00

Boston

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 51.00 to \$ 53.00
No. 2 hvy. melting	41.00 to 43.00
No. 1 dealer bundles	53.00 to 55.00
No. 2 bundles	34.00 to 36.00
No. 1 busheling	59.00 to 61.00
Shredder scrap	61.00 to 63.00
Machine shop turnings	12.00 to 14.00
Shoveling turnings	18.00 to 20.00
No. 1 machinery cast	75.00 to 80.00
Mixed cupola cast	46.00 to 48.00
Heavy breakable cast	8.00 to 10.00

San Francisco

No. 1 hvy. melting	\$ 38.00 to \$ 40.00
No. 2 hvy. melting	32.00 to 34.00
No. 1 dealer bundles	29.00 to 31.00
No. 2 dealer bundles	17.00 to 19.00
Machine shop turnings	8.00 to 9.00
Cast iron borings	8.00 to 9.00
No. 1 cupola cast	80.00 to 82.00

Los Angeles

No. 1 hvy. melting	\$ 38.00 to \$ 40.00
No. 2 hvy. melting	32.00 to 34.00
No. 1 dealer bundles	29.00 to 31.00
No. 2 dealer bundles	16.00 to 18.00
Machine shop turnings	13.00 to 14.00
Shoveling turnings	10.00 to 11.00
Cast iron borings	8.00 to 9.00
Elec. furnace, 1 ft. and under	
(foundry)	70.00 to 72.00
No. 1 cupola cast	72.00 to 74.00

Seattle

No. 1 hvy. melting	60.00 to 62.00
No. 2 hvy. melting	51.00 to 53.00
No. 2 bundles	35.00 to 37.00
No. 1 cupola cast	89.00 to 90.00
Mixed yard cast	80.00 to 82.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 82.00
No. 2 hvy. melting, cut 2 ft. and under	72.00
No. 1 dealer bundles	83.00
No. 2 bundles	58.00
Mixed steel scrap	53.00
Bush. new fact. prep'd	83.00
Bush. new fact. unprep'd	64.00
Machine shop turnings	35.00
Short steel turnings	35.00
Mixed borings and turnings	20.00
Cast scrap	89.00

Houston

Brokers buying prices per gross ton on cars.	
No. 1 hvy. melting	\$ 70.00 to \$ 71.00
No. 2 hvy. melting	57.00 to 58.00
No. 2 bundles	43.00 to 44.00
Machine shop turnings	13.00 to 14.00
Crushed turnings	33.00 to 34.00
Shredder scrap	77.00 to 78.00
Cut structural plate, 2 ft. and under	100.00 to 101.00
Cut structural plate, 5 ft. and under	82.00 to 83.00
Unstripped motor blocks	60.00 to 61.00
Cupola cast	86.00 to 87.00

Disinflation turned to deflation in August for prices of producer finished goods. The price decline from July came to 0.3 pct.

An actual decline in these prices is not new. In June, finished goods tags also declined, then by 0.2 pct.

What is new is that producer prices for the year may break, or at least equal, record lows reaching back two decades.

Through the first eight months this year, producer finished goods prices were up 0.8 pct. Some economic forecasters are saying that prices for all of 1985 may equal or beat the 0.5 pct increase of 1964.

One source forecasts an actual decline in prices for the full year. The last year of an actual decline was 1963, when prices fell by 0.2 pct.

While the recent price softness has been surprising, it is the turnaround in prices that is mind-boggling. After all, forecasters now are talking about possible 20-year records for low prices and it is just a few short years from the 1979-81 years when producer prices averaged 11.3 pct rises per year.

It has not been metalworking industrial goods lines that have led in the present price softness. The average August rise for the 22 key metalworking product lines listed on the table here came to 0.9 pct.

Metalworking capital goods lines, however, are running below the overall rise rate. Prices of these lines rose by only 0.2 pct in August.

One notable point seen on the table is that 11 of the 22 product lines in August showed no price changes or actual declines. Recent price pressures have been steadily pushing metalworking products into no-change or minus readings.

By year's end, will the month-to-month price changes for the products listed here be all minus readings? Stay tuned.

Products	Index Reading For Month (1967 = 100)	Pct Change From Previous Month	Pct Change From Year-Ago Month
Metal Cutting Machine Tools	397.0	— 0.1	+ 3.1
Metal Forming Machine Tools	434.8	0	+ 2.4
Agricultural Machinery & Equip.	338.4	— 0.2	— 0.1
Construction Machinery & Equip.	362.5	+ 0.1	+ 1.6
Industrial Process Furnace & Ovens	385.4	+ 0.1	+ 2.6
Industrial Material Handling Equip.	295.8	+ 0.1	+ 1.9
Pumps, Compressors & Allied Equip.	357.0	+ 0.2	+ 2.4
Fluid Power Equip. (Dec. 1970 = 100)	265.1	— 0.1	+ 1.3
Mechanical Power Transmission Equip.	340.1	0	+ 3.7
Automobiles	227.9	— 0.4	+ 3.5
Motor Trucks—Light	293.7	+ 0.1	+ 4.4
Motor Trucks—Heavy	333.3	0	+ 0.7
Railroad Equipment	364.6	+ 0.5	+ 1.9
Fabricated Metal Structural Products	315.1	+ 0.2	+ 0.9
Electric Motors	351.2	— 0.2	+ 3.2
Valves & Fittings (Dec. 1982 = 100)	104.9	0	+ 2.2
Ball & Roller Bearings	354.2	+ 0.2	+ 2.8
Cutting Tools & Accessories	268.8	+ 0.3	+ 2.7
Heating Equipment	261.1	+ 0.2	+ 2.2
Plumbing Fixtures & Brass Fittings	313.5	+ 0.1	+ 2.9
Metal Containers	357.9	— 0.1	+ 1.7
Miscellaneous Metal Products	303.1	0	+ 2.7

Data based on U.S. Labor Dept.'s Producer Price Index